Preservation Activities at the Library of Congress

Part 3: Functional Requirements

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Contents

Part 3: Functional Requirements

Purpose

The tables that follow provide a high-level statement of functional requirements for systems supporting the management of information within the Preservation Directorate.

The tables are designed to encapsulate the range of information transactions that occur across the organizational units within the Directorate and to relate them to a structured set of information management functions.

Scope

The functional requirements tables are centred on the information management functions carried out within the Preservation Directorate at the Library of Congress. They are intended to provide a comprehensive overview of those functions. Further consultation within LC will be required to determine how fully the draft tables reflect the information management functions relating to preservation activities managed in custodial divisions outside the Preservation Directorate.

This draft of the functional requirements tables is based on an analysis of the information transactions identified in Tables 1.1 through 1.25 in the process model (Part 1), supplemented to reflect requirements derived from an analysis of reports and other documents provided by the five divisions within the Directorate, and was reviewed in a walk through session with the divisions.

Structure

The first table (Table 19) provides an overview of the information management functions, with a brief description for each function. The tables that follow (Tables 19.1 through 19.10) identify the information classes involved in each function and provide a structured statement of the requirements to be supported for each of the functions.

Table 19: Functional Requirements   Information management functions

Function	Description
Manage item description and action information	Record, update, and search information pertaining to the condition, structure, and use of materials in the library s collections and actions taken to preserve those items.
Manage environmental and collections monitoring information	Record, update, and compile information pertaining to the environments in which library materials are stored, exhibited, or processed, information on surveys conducted to assess the condition of collections, information on incidents affecting the collections and response to those incidents.
Manage supplies and equipment inventory information	Record, update, search, and compile information pertaining to approved specifications for materials and equipment used in preservation processing, inventory information, and information on the testing and maintenance of materials and equipment.
Manage routing and tracking information	Record, update, search, format, and compile information pertaining to the routing of collection materials within the Preservation Directorate, to and from custodial divisions, to and from vendors, and the tracking of materials in process.
Manage processing information	Record, update, search, and compile information pertaining to the assessment, scheduling, marking, preparation, housing, binding, treatment, reformatting, replacement, quality review, storing, disposition, and delivery of collection materials.

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Manage order, shipping and receiving information	Record, update, search, format, and compile information pertaining to the preparation of purchase orders, work orders, and shipping lists, information on vendors and shippers, information on contracts, information on delivery of orders and shipments, and information on financial commitments and payments.
Manage employee and unit performance information	Record, update, search, and compile quantitative information on employee performance, and statistical information on organizational productivity.
Manage policy and procedures information	Record, update, search, format, and compile information pertaining to policies set by and/or applying to the Preservation Directorate and procedures approved for use within the Directorate or for use by custodial divisions.
Manage planning information	Record, update, search, and compile information pertaining to proposals, projects, and plans, information on budgets and resource allocations, and information on audits.
Manage research, training, and outreach information	Record, update, search, format, and compile information pertaining to research projects, testing, training and outreach events conducted by or with the participation of the Preservation Directorate, and publications prepared by the Directorate.

Table 19.1: Functional Requirements   Manage item description and action information

Information Class	Functional Requirements
Item* identification	Record and update item identification information (e.g., record/revise call number, barcode number) Search on item identification information (e.g., scan barcode to find item record)
Item description	Record and update item description information (e.g., record/revise information pertaining to item structure, condition, or terms of use) Search item description information (e.g., search for availability of an alternative copy or master) Format item description (e.g., to forward reformatted product description to cataloguing)
Item access restrictions	Record and update item access restrictions (e.g., to note restricted access to a fragile item) Search item access information (e.g., to check reproduction rights)
Item action	Record and update item action information (e.g., record/revise recommended action, scheduled action, action history)

* In this table the term item is used to refer to any of the entities defined in Table 3 (i.e., item aggregate, item, item part, element).

Table 19.2: Functional Requirements   Manage environmental and collections monitoring information

Information Class	Functional Requirements
Environmental information	Record and update environment information (e.g., record/update temperature, humidity, air quality, and light level readings for a specific location and time) Compile and tabulate environment information (e.g., compile daily reports on temperature and humidity readings for a specific location)
Survey information	Record and update survey information (e.g., record/update information on survey population, methodology, and variables) Compile and tabulate survey information (e.g., compile results of collection surveys)
Incident information	Record and update incident information (e.g., record/update information on location, date/time, and cause of incident, extent of damage) Compile and tabulate incident information (e.g., compile quarterly/annual report on incidents affecting a specific collection, location, or facility)
Response information	Record and update incident response information (e.g., record/update information on date/time of response, action taken, response follow-up, response team participation) Compile and tabulate response information (e.g., compile quarterly/annual report on response team activity)

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Table 19.3: Functional Requirements   Manage supplies and equipment inventory information

Information Class	Functional Requirements
Materials specifications	Search materials specifications information (e.g., search approved specifications for non-acidic phase boxes)
Equipment specifications	Search equipment specifications information (e.g., search approved specifications for flat-bed copiers)
Materials inventory	Record and update materials inventory information (e.g., record/revise quantity of stocked boxes of a specific size) Search materials inventory information (e.g., search current inventory of labels) Compile materials inventory information (e.g., compile monthly inventory report for a specific group of materials)
Equipment inventory	Record and update equipment inventory information (e.g., record/revise quantity of a specific type of camera) Search equipment inventory information (e.g., search current inventory of scanners) Compile equipment inventory information (e.g., compile annual equipment inventory for a specific unit)
Materials testing	Search materials testing information (e.g., search testing status of materials received in a specific shipment)

Equipment maintenance   Record and update equipment maintenance information (e.g., record/revise maintenance schedule and history for a specific flatbed copier)
Search equipment maintenance information (e.g., search maintenance status for a specific camera)
Compile equipment maintenance information (e.g., compile quarterly/annual report on maintenance of equipment in a specific unit)

Table 19.4: Functional Requirements   Manage routing and tracking information

Information Class	Functional Requirements
Routing information	Record and update routing information (e.g., record/revise information identifying the employee, unit, process, or vendor to whom an item is to be routed) Format routing information (e.g., format information for a routing slip) Compile routing information (e.g., compile a daily report on items routed to a particular unit or process)
Tracking information	Record and update tracking information (e.g., record/revise information on the receipt of an item by an employee, unit, process, or vendor and its physical location) Search tracking information (e.g., search tracking information to determine an item s current location) Compile tracking information (e.g., compile a daily report on items released from a particular unit or process)

Table 19.5: Functional Requirements   Manage processing information

Information Class	Functional Requirements
Item identification	Search item identification information (e.g., to confirm call number before producing a spine label) Format item identification information (e.g., to format call number for spine label)
Item structure	Record and update item structure information (e.g., record/revise placement of targets in reformatted product)
Assessment information	Record and update assessment information (e.g., record/revise information on the type of assessment conducted, the procedure used in the assessment, the date and time spent conducting the assessment, assessor) Search assessment information (e.g., search assessment information to determine the status of an item assessment) Compile assessment information (e.g., compile statistical reports on planning review assessments conducted for a particular project)
Recommendation information	Record and update recommendation information (e.g., record/revise information on the action recommended for an item, the date the recommendation was made, the estimated cost of acting on the recommendation) Search recommendation information (e.g., search recommendation information to determine what action has been recommended for a particular item)

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Action request information	Record and update action request information (e.g., record/revise information on the date of receipt of an action request, the turnaround time requested) Search action request information (e.g., search action request information to confirm specific instructions conveyed with that action request) Compile action request information (e.g., compile weekly reports on action requests received by a particular unit)
Scheduling information	Record and update scheduling information (e.g., record/revise information on the date of scheduling, the projected date of action, specific instructions pertaining to the action scheduled) Search scheduling information (e.g., search scheduling information to confirm the scheduling status of a particular item) Compile scheduling information (e.g., compile cost projection reports on the estimated cost of actions scheduled for a specific project)
Processing information	Record and update processing information (e.g., record/revise information on the date of initiation of a specific preparatory task, the material used in performing the task) Search processing information (e.g., search reformatting information to confirm the status of a particular task pertaining to the processing of an item) Compile processing information (e.g., compile statistical reports on costs associated with a particular type of processing task)
Allocation information	Record and update allocation information (e.g., record/revise resource allocation for treatment of a group of items)
Commitment information	Record and update commitment information (e.g., record/revise commitment for a reformatting order)

Table 19.5   Manage processing information

Action information   Record and update action information (e.g., record/revise details of treatment performed)

Table 19.5   Manage processing information

Table 19.6: Functional Requirements   Manage order, shipping and receiving information

Information Class	Functional Requirements
Item description	Search item information (e.g., scan barcode to find item record) Format item identification/description information (e.g., format call number for binding order, prepare packing list)
Scheduled action information	Search scheduled action information (e.g., search scheduled action information to confirm projected date of action) Format scheduled action information (e.g., format action/instructions for use in order)
Order item information	Record and update order item information (e.g., record/revise estimated cost) Format order item information (e.g., format order item instructions for purchase order) Search order item information (e.g., search order item information to verify order details on receipt of delivered product)
Order information	Record and update order information (e.g., record/revise account number, date of issue) Search order information (e.g., search purchase order information to follow up on delivery) Format order information (e.g., format order information for work order) Compile order information (e.g., compile daily/weekly log of orders)

Vendor information	Record and update vendor information (e.g., record/revise vendor contact information)
	Search vendor information (e.g., search vendor information to confirm address for follow up on order)
	Format vendor information (e.g., format vendor information for purchase order)
Contract information	Record and update contract information (e.g., record/revise contract specifications)
	Search contract information (e.g., search contract information to confirm termination date)
	Format contract information (e.g., format information for contract form)
Commitment information	Record and update commitment information (e.g., record/revise amount of commitment)
	Compile commitment information (e.g., compile monthly report on outstanding commitments)
Delivered product information	Record and update delivered product information (e.g., record/revise delivered product status, date of acceptance)
	Compile delivered product information (e.g., compile monthly report on delayed delivery)
Payment information	Record and update payment information (e.g., record/revise amount of payment)
	Compile payment information (e.g., compile monthly report on payments)

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Table 19.6   Manage order information

Shipping request information

Record and update shipping request information (e.g., record/revise date of request, type of shipping requested)

Search shipping request information (e.g., search shipping request to confirm type of shipping requested)

Shipped item information

Record and update shipped item information (e.g., record/revise shipping instructions)

Format shipped item information (e.g., format shipped item instructions for shipping order)

Search shipped item information (e.g., search shipped item number to verify details when notified of problem by shipper)

Shipment information

Record and update shipment information (e.g., record/revise shipment destination, date of shipping)

Search shipment information (e.g., search shipping order number to follow up on delivery)

Format shipment information (e.g., format shipment information for bill of lading)

Compile shipment information (e.g., compile daily/weekly log of shipments)

Delivery information

Record and update delivery information (e.g., record/revise shipment delivery status, date of delivery)

Compile delivery information (e.g., compile monthly report on delayed deliveries)

Table 19.6   Manage order information

Table 19.7: Functional Requirements   Manage employee and unit performance information

Information Class	Functional Requirements
Employee information	Record and update employee information (e.g., record/revise employee contact information, employee level, employee work schedule) Search employee information (e.g., search employee information to verify qualifications) Compile employee information (e.g., compile monthly performance report for employee)
Unit information	Record and update unit information (e.g., record/revise unit location, unit contact information) Search unit information (e.g., search unit information to verify contact information) Compile unit information (e.g., compile staff roster for unit)
Task information	Record and update task information (e.g., record/revise date of completion, duration for preparation task) Compile task information (e.g., compile weekly production statistics)

Table 19.8: Functional Requirements   Manage policy and procedures information

Information Class	Functional Requirements
Policy information	Record and update policy information (e.g., record/revise policy application, policy requirements) Search policy information (e.g., search policy information to verify requirements) Format policy information (e.g., format policy requirements for dissemination) Compile policy information (e.g., compile list of policies currently in effect)
Procedures information	Record and update procedures information (e.g., record/revise procedure specifications) Search procedures information (e.g., search procedures information to verify specifications) Format procedures information (e.g., format procedures requirements for dissemination) Compile procedures information (e.g., compile list of procedures currently in effect)

Table 19.9: Functional Requirements   Manage planning information

Information Class	Functional Requirements
Proposal information	Record and update proposal information (e.g., record/revise proposal summary, response summary) Search proposal information (e.g., search proposal information to verify date of receipt) Compile proposal information (e.g., compile monthly list of proposals received)
Plan information	Record and update plan information (e.g., record/revise planned tasks) Search plan information (e.g., search proposal information to verify milestones) Compile plan information (e.g., compile update of annual plan)
Project information	Record and update project information (e.g., record/revise project assessment, project priority) Search project information (e.g., search plan information to verify submission date) Compile plan information (e.g., compile update of annual plan)
Budget information	Record and update budget information (e.g., record/revise budget allocation) Search budget information (e.g., search budget information to confirm current budget allotment) Compile budget information (e.g., compile monthly budget report)
Allocation information	Record and update allocation information (e.g., record/revise resource allocation) Search allocation information (e.g., search allocation information to confirm current resource allocation) Compile allocation information (e.g., compile annual allocation report)

Contract information   Record and update contract information (e.g., record/revise terms and conditions of contract)
Search contract information (e.g., search contract information to confirm production target)

Audit information   Record and update audit information (e.g., record/revise audit findings, audit recommendations)
Search audit information (e.g., search audit information to confirm audit criteria)
Compile audit information (e.g., compile consolidated report of audit findings)

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Table 19.10: Functional Requirements   Manage research, training, and outreach information

Information Class	Functional Requirements
Research information	Record and update research project information (e.g., record/revise research project objectives, results) Format research project information (e.g., format research report for dissemination)
Training information	Record and update training event information (e.g., record/revise workshop date, content) Format training event information (e.g., format workshop information for dissemination)
Outreach information	Record and update outreach event information (e.g., record/revise symposium date, content) Format outreach event information (e.g., format symposium information for dissemination)
Publication information	Record and update publication information (e.g., record/revise publication date, price) Search publication information (e.g., search publication information to determine current availability of a title) Compile publication information (e.g., compile list of currently available publications)
Material specifications	Record and update materials specifications information (e.g., record/revise information on approved specifications for labelling materials and adhesives) Compile materials specifications information (e.g., compile a list of specifications for a specific category of materials)

Equipment specifications Record and update equipment specifications information (e.g., record/revise information on approved specifications for scanning equipment)
Compile equipment specifications information (e.g., compile a list of specifications for a specific category of equipment)

Test information Record and update test information (e.g., record/revise test status, results)
Search test information (e.g., search test information to determine current status)
Compile test information (e.g., compile list of tested materials for dissemination)